In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. - 85. (Canceled)

86. (New) A reciprocating circuit comprising:

a capacitor configured to be coupled to a voltage source through a plurality of switches; and

a plurality of switches coupled to the voltage source and configured to facilitate charging of energy in a coil assembly, discharging of the energy in the coil assembly, charging of the capacitor with the discharged energy from the coil assembly, discharging of the energy in the capacitor, and recharging of the coil assembly with energy discharged from the capacitor.

87. (New) The reciprocating circuit of claim 86, comprising a first switch, a second switch and a third switch.

88. (New) The reciprocating circuit of claim 87, wherein the first switch is arranged in parallel with the second switch and further in parallel with the third switch.

89. (New) The reciprocating circuit of claim 88, wherein the coil assembly is in series between the voltage source and the plurality of switches.

90. (New) The reciprocating circuit of claim 89, wherein the coil assembly is placed in parallel with the first switch, the second switch and the third switch.

91. (New) The reciprocating circuit of claim 90, wherein the first switch is coupled to ground.

92. (New) The reciprocating circuit of claim 91, wherein the capacitor is coupled in series between the second switch and ground.

93. (New) The reciprocating circuit of claim 92, wherein the second switch comprises a diode.

94. (New) The reciprocating circuit of claim 93, wherein the first switch is coupled to a micro-controller.

95. (New) The reciprocating circuit of claim 94, wherein the third switch is coupled to a micro-controller.

96. (New) A method of producing a reciprocal motion in a fuel pump comprising the steps of :

(a) providing a first, a second, and a third switch wherein only one of the first, second and third switch is closed at one time;

(b) closing the first switch;

(c) producing a current using a voltage source;

(d) providing a path for current flow through a coil assembly and through the first switch to cause a portion of the reciprocal motion;

(e) opening the first switch and closing the second switch;

(f) providing a path for current flow through the coil assembly through the second switch;

(g) discharging the energy stored in the coil assembly into the capacitor;

(h) storing the energy in the capacitor;

(i) opening the second switch and closing the third switch; and

(j) discharging the energy stored in the capacitor into the coil assembly

97. (New) A method of displacing fuel in a pump system comprising the steps of:

energizing a coil by providing a first electrical path through the coil in a first direction;

actuating the coil to drive an armature in a downward direction;

de-energizing the coil by providing a second electrical path from the coil to a capacitor which is configured to store the energy which is dissipated from the coil;

de-energizing the capacitor by providing a third electrical path from the capacitor to the coil by which current is driven through the coil in a second direction; and

actuating the coil to drive the armature in an upward direction.

98. (New) A method of displacing a pumping assembly comprising the steps of:

(a) energizing a coil assembly to displace a pumping assembly from an initial position to cause a first pumping motion;

(b) storing energy in a capacitor coupled to the coil assembly; and

(c) discharging the energy from the capacitor to the coil assembly to displace the pumping assembly to the initial position to cause a second pumping motion.

99. (New) The method of claim 98, wherein the energy is first stored in the coil assembly, and then discharged from the coil assembly to charge the capacitor.

100. (New) An electrical circuit for providing power to a coil of a fuel injection device, comprising:

a capacitor; and

electrical circuitry operable to selectively couple the coil to a power source to enable current to flow from a power source through the coil in a first direction to provide power to the fuel injection device and to selectively couple the coil to the capacitor to enable current to flow from the capacitor through the coil in a second direction to provide power to a fuel injection device.

101. (New) The electrical circuit as recited in claim 100, wherein the electrical circuitry is operable to selectively couple the capacitor to the power source to charge the capacitor.

102. (New) The electrical circuit as recited in claim 101, wherein the electrical circuitry couples the capacitor to the power source through the coil to charge the capacitor.

103. (New) The electrical circuit as recited in claim 100, further comprising the coil.

104. (New) The electric circuit as recited in claim 100, wherein the electrical circuitry comprises electronic switching devices operable to selectively complete and open conductive paths between the power source, coil, and capacitor.

105. (New) A method of operating a fuel pump, comprising the acts of:

operating electrical circuitry to produce current flow in a first direction through a coil to produce motion in a first portion of the fuel pump in a first linear direction;

operating the electrical circuitry to apply power to a capacitor to charge the capacitor; and

operating the electrical circuitry to discharge the capacitor through the coil to produce current flow through the coil in a second direction to produce motion in the first portion of the fuel pump in a second linear direction, opposite the first linear direction.

106. (New) The method as recited in claim 105, wherein fuel is injected into a combustion chamber by a second portion of the fuel pump as the first portion of the fuel pump is driven in the first linear direction.